

75. The gravity-sensitive latch of claim 74, wherein said linking means pivotal mounting second location is at a first end of said pawl; and wherein said pawl includes a hook for at the second end thereof for engaging a keeper.

76. The gravity-sensitive latch of claim 75, wherein said pivotal mounting at first location on said pawl is adjacent said pivotal mounting at said second location on said pawl.


77. The gravity-sensitive latch of claim 76, wherein said linking means is a pendulum pivotally mounted to said pawl at said second location, said pendulum being operable to swing to the interposed position for abutment with said handle flange member, which movement thereby moves the pawl to rotate thereby moving the hook away from its keeper engaging position.

78. The gravity-sensitive latch of claim 77 wherein said pendulum is triangular in shape, having a pivotal connection corner, a weighted corner and a flange abutment corner.

REMARKS

In his first and only Office Action on the merits, the Examiner cited Wilstermann (4,906,044) in support of a 35 USC 102(b) rejection of un-amended claims 23-36, 39, 40, 50, and 58. The Examiner alleges that Wilstermann shows each limitation in these rejected un-amended claims, including a pendulum 110. Further he cited Langmeser (5,803,537) in support of a 35 USC 102(b) rejection of the un-amend claims 41-49, 51-53, 55 and 58. The Examiner alleges that Langmeser shows each limitation in these rejected un-amended claims including pendulum 50. The claims 23-36, 38-53 and 55-58 were amended overcome the references and the additional two references (Bako and Hawie) cited in support of separate 35 USC 103(a) rejections. These claims 23-36, 38-53 and 55-58 stand allowed.

Applicants have filed a R.C.E. for the purposes of supplementing their prior Information Disclosure Statement with respect to physical exhibits, Items 1-6. That supplemental



submission will be forthcoming. Applicants have provided a separate first supplemental I.D.S. and Form 1449, herewith, directed to other art. Applicants have also added new claims 59-78. It is urged that these new claims differentiate over the art of record and are allowable as filed.

Applicants rely upon the standard definition of the term "pendulum" as found in McGraw Hill Dictionary of Scientific and Engineering Terms, and as found in Webster's New 3rd International Dictionary. A "pendulum" is a body suspended from a fixed point so as to swing freely to and fro under action of gravity.

Langmeser does not show nor suggest pendulum. His element 50 is a "flip lever 50". See column 3, lines 60-65, and column 4, lines 26-51, and Figs. 6-8 for a description of the structure and operation of the Langmeser flip lever 50. This flip lever 50 is really a lockout rod, which is not pinned and does not swing. It tilts into a cavity 44 to wedge members 24 and 36 in a fixed position and prohibits the separation of the hook 42 from the lip 52. Langmeser teaches a positive-type lockout device. Any amount of pressure asserted on the latch plunger 36 is transferred into the Langmeser structure and resisted by the lockout rod (flip lever 50). This means that the structural strength of materials and the physical design of the Langmeser latch must be sufficient to withstand excessive forces, which may be applied to the plunger 36 and connected members when the Langmeser latch is locked-out of operation. Clearly Langmeser shows no pendulum.

Wilstermann, in his principal embodiment (Figs. 1-3) shows not pendulum but a lockout ball 58. This ball 58 is a blocking device and expressly recited by Wilstermann to be so at column 2, lines 3-6 and lines 63-67, and at column 3, lines 1-5. This ball 58 in the lockout position wedges between elements 46 and 64 (Fig. 3) to resist any forces exerted against elements 40, 50. In the locked out position any forces exerted on element 40, 50 will be transferred through the ball 58 against the protruding lip of element 64. Forces that exceed the strength of materials in the Wilstermann latch when it is locked-out will break the latch.

Wilstermann shows schematic simplifications of his principal embodiment of Figs. 1-3 in his schematics Figs. 4 and 5. See column 3, lines 25-40. In Figs. 6 and 7 Wilstermann shows schematic simplifications for a second embodiment of his invention. See column 3, lines 41-61.

"This second embodiment likewise expressly employs a lockout "blocking member 104 pivotally mounted to the housing base 102 by pivot 106 and includes a blocking element 108 and a counter weight 110. The counterweight 110 engages with a stop 112 as shown in fig. 6 to position the blocking element 108 at a location permitting free rotation of the latch lever 96 into and away from engagement with the base housing 102."

"However, as shown in FIG. 7, pivotal movement of the arm rest 90 to the stored position causes the counterweight 110 to have rotated the blocking element 108 into a blocking position with respect to the hook portion 100 of the latch lever 96 so that he latch lever 96 cannot be pivoted relative to the base 92 to unlatch the cover 94."

Wilstermann's structure shown in his Figs. 1-3 does not lend itself to a replacement of his blocking ball 58 with his pivotal 106, his blocking element 108 and his counterweight 110. In fact it is not clear from his schematic "block diagram type" drawings Figs. 6-7 exactly how his elements 102, 104, 106, 108, 110 are designed and operate with respect to his disclosed structure. Wilstermann's schematics merely show theory.

When his armrest 94 is in the horizontal position, Fig. 6, his blocking element 108 hangs vertically downward from a pivot point 106 on the end of housing 102 and the counterweight 110 rests against stop 112. When his armrest 90 is rotated to the vertical position (or slightly past vertical position) Fig. 7, the stop 112 is rotated clockwise, about 90 degrees to about 30 degrees before the vertical. This stop 112 has carried the blocking element 110 to a position about 30 degrees short of the vertical. The relative positions, of Wilstermann's blocking element 108 and counterweight 110 appear, constant between Figs. 6 and 7, i.e., the blocking element 108 is about 20 degrees counterclockwise from the counterweight 110.

Therefore, when arm rest is rotated about 90+ degrees, the stop 112 reaches its vertical up-most position, of about 30 degrees counterclockwise from vertical, and the counterweight 110 is thereby also carried to that position. If the blocking element 108 and the counterweight

110 are presumed to be attached, which Wilstermann does not expressly disclose. Then when the counterweight 110 moves, the blocking element 108 moves.

However, it is unclear from the Wilstermann drawings, Figs. 6-7 and his relevant description, column 4, lines 41-61, how this second embodiment is to work. Specifically, there is no disclosure for Wilstermann's recital (above-transcribed) at from column 3, lines 55-58:

"...pivotal movement of the arm rest 90 to the stored position causes the counterweight 110 to have rotated the blocking element 108 into a blocking position with respect to the hook....:

If the stop 112 and counterweight 110 stop at about 30 degrees (counterclockwise) short of vertical, what causes the counterweight 110 to end up at about 15 degrees clockwise of vertical, and the blocking element 108 to be carried with it to stopped position about 10 degrees (counterclockwise) short of vertical, as illustrated in Fig. 7 ? The only plausible answer is that the counterweight 110 and the blocking element 108 are fixed to rotate together.

The further plausible answer is that the counterclockwise motion of the armrest 90 imparts a momentum to the counterweight 110. When the armrest 90 hits its vertical position stop, it then catapults the counterweight 110, upward, clockwise beyond the vertical to come to rest against the latch lever 96. This catapult motion carries the attached blocking element 108 to come to rest in its blocking position shown in Fig. 7.

A catapult is not a pendulum. There is no law in physics in which gravitational forces will carry counterweight 110, upward, clockwise, over vertical to come to rest 15 degrees clockwise of vertical, as Wilstermann shows in his Fig. 7.

Regardless, Wilstermann's suggestions for his second embodiment are again for a lockout mechanism. Wilstermann shows nothing but a lockout mechanism in each embodiment.

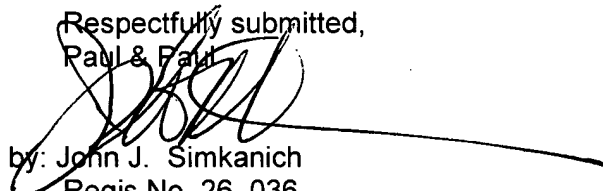
Applicants' invention departs from the prior art in that it is not a lockout mechanism, but a dislocating or disconnecting mechanism. In applicants' invention, when the housing is rotated to the vertical position, so that the pendulum moves under gravitational force, to rotate down and

outwardly, to the non-interposed position, the other latch members cannot then be subjected to any forces asserted on applicants' manually operated handle. In the non-interposed position, applicants' handle has no connection to the activation structure for their latch. Applicants' internal latch members do not need to have structural strength to withstand any forces exerted on the handle when the handle is dislocated from the latch activation structure. Therefore, applicants' invention also provides the advantage of reduced strength of materials levels.

It is urged that the new claims 59-78 differentiate the present invention over the prior art of record and are allowable as presented for examination herein above.

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